What is a Historical Site Assessment?

An HSA describes a site's radiological history from the start of activities to the

The Historical Site Assessment...

- · Identifies sites
- · Reviews historical operations
- Describes current conditions
- · Classifies sites for radiological impact

How was the HSA Completed?

- Information was gathered from multiple sources, such as personal interviews, use authorizations, incident reports, site inspections, facility maps, historical photos and previous radiological surveys
- · All Area IV structures past or present, government or company owned and areas of contamination, were defined as
- Site summaries were prepared for each of the 272 sites

Site Summaries, like this have been completed for all 272 Area IV sites:

Site Identification:

Any name used for the site (also purpose and association changed over time, resulting in several different names)

Operational Use/History:

The date site was constructed, programs the site supported, dates these programs were operating deactivation/decontamination activities and demolition date

Site Description:

A physical description of the site and any holding tanks, or other below ground structures, leach field, or air filter structure (stacks, HEPA filtration) associated with the site

Relevant Site Information:

Type of radiological material managed at the site, use authorizations and any incidents that may have resulted in potential releases to the environment

Radiological Surveys:

Radiological surveys performed at the site, description of survey purpose(routine, characterization, final status, verification) date conducted, agency conducting the survey, survey scope (interior or exterior), measurements collected, acceptable limits for survey and survey results.

Site release date and releaseing agency (if applicable) and demolition date or current

Historical Site Assessment Santa Susana Field Laboratory Area IV

Focus on the Hot Lab

Site Identification





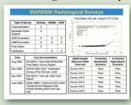
Rockwell International Hot Lah Component Development Hot Cell (CDHC)

Site Description



- Rectangular steel and concrete building with 16,000 ft² of floor space.
- Four shielded, atmosphere-controlled internal cells used for the remote examination of highly radioactive materials.
- · The Building featured an operating gallery, service gallery, maintenance rooms a mock up room and administrative areas
- · An exhaust stack originated from the basement air filtering system to 55 feet above the top of the building.
- · All drainage systems in the building were connected to a holdup tank.

Radiological Surveys







Operational History

- Construction completed in 1959.
- · Used for the disassembly and examination of irradiated nuclear fuel assemblies from various nuclear reactors such as Sodium Reactor Experiment (SRE), Systems for Nuclear Auxiliary Power (SNAP) and others.
- · Used for the decladding of irradiated plutonium bearing fuels from off-site reactors from 1976 to 1986
- DOE decided to demolish the facility in 1986.
- Initial decontamination occurs 1987 to 1991 with removal of hazardous materials and equipment.
- · Further decontamination and demolition took place from

Relevant Site Information

- During the 30-year operational history of the Hot Lab nearly 50 incidents occurred
- Incidents are listed in the HSA and include:
 - Contamination of personnel, equipment, structures within the facility which were subsequently decontaminated.
 - Sodium/Potassium liquid metal, uranium and cleaning alcohol fires.
 - Increase in airborne activity levels.
 - Liquid spills.
- · Perhaps the most serious incident occurred in 1971:
- A fire occurred in Decontamination Room 4 during the disposal of 100 gallons of sodium/potassium liquid metal which contained radioactivity.
- Nearly all contamination was contained to the Hot Cell.
- Resulting airborne activity ranged from 2 to 20 percent of the permissible concentrations for occupational use.
- Average concentrations released to the outside through the stack was about

Status

- Building 4020 was completely demolished and the site backfilled
- The land was released for unrestricted use

Results of HSA for all of Area IV

272 sites were identified in Area IV: 177 non-impacted 95 impacted

70 require no further action 25 require additional soil sampling

Buildings to be Demolished with Soil Sampling Required





Sites Requiring Soil Sampling (Buildings previously released)



















